

ABSTRACT

A retention device stabilizes the logic output levels of a dynamic logic stage. The dynamic logic stage contains an inverter, which generates an inverted logic signal that is used as a feedback signal into the retention device. The retention device contains a switching element consisting of two active elements connected in series. The retention device has two inputs, a control input for receiving a delayed clock signal, and a feedback input for receiving the inverted logic signal generated by the inverter. The feedback and delayed clock signals switch the switching element between two retention states, where each retention state stabilizes a respective logic output level.